

Vice-Provost, Research & The Office of Research

NSERC



25 years of research
success at Concordia

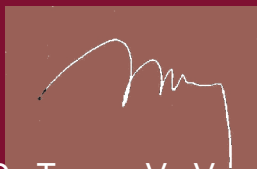


Concordia
UNIVERSITY

25 years of research achievement with NSERC

Science and Engineering Research Canada (a.k.a. NSERC) is a premiere federal agency that has consistently provided a solid support to Canadian science and engineering researchers now for a quarter of a century. To celebrate those who have been continuously awarded a grant for these 25 years, NSERC is holding events across the country to recognize the achievements of the grant holders.

In this context, Concordia University is proud to present the following 43 researchers who have reached this milestone. Their contributions have been made in a variety of disciplines and most of them are still very active in advancing knowledge in their respective fields. In concert with NSERC, we offer all of the researchers our warmest congratulations and wish them continued success in their lifelong quest for excellence.

A handwritten signature in white ink on a dark red background. The signature is stylized, starting with a large 'T' and ending with a long, sweeping horizontal line.

Dr. Truong Vo-Van
Vice-Provost, Research

Vangalur Alagar

Dr. Vangalur Alagar retired from the Dept. of Computer Science and Software Engineering in the Faculty of Engineering and Computer Science in 2001 following 26 years of teaching and research at Concordia. He was educated at the University of Madras in India, and at the State University of New York in Stony Brook, New York, and McGill University in Montreal. His research interests have been in languages and systems, adopting rigorous approaches to their design, semantics, and analysis.

Paul Albert

Dr. Paul Albert has been a researcher in the Dept. of Biology in the Faculty of Arts and Science since 1973. He was educated at the University of New Brunswick and the University of Regina. His research interests are focused on insect taste sensilla, including their structure and function, and behavioural and electrophysiological studies.

Syed Twareque Ali

Dr. Syed Twareque Ali joined the Dept. of Mathematics and Statistics in the Faculty of Arts and Science in 1981, following several years as a professor at the University of Prince Edward Island in Charlottetown, where he received his first NSERC grant. He was educated at Dacca University (a.k.a. University of Dhaka) in Bangladesh and the University of Rochester in New York. His primary research area is Mathematical Physics.

Zalman Amit

Distinguished Professor Emeritus Dr. Zalman Amit retired from the Dept. of Psychology in the Faculty of Arts and Science in 2000 following 28 years of teaching and research at Concordia. He was educated at the University of Wales in the United Kingdom and McGill University in Montreal. As a founding member of the Center for Studies in Behavioral Neurobiology, Dr. Amit's research interests have included studies on the central mechanisms of ethanol reward and genetic predispositions for the ingestion of ethanol.

J. William Atwood

Dr. J. William Atwood has been a Professor in the Dept. of Computer Science and Software Engineering in the Faculty of Engineering and Computer Science since 1972. He was educated at McGill University, the University of Toronto, and the University of Illinois. His research concerns the specification, validation, and evaluation of communications protocols, and with the application of these protocols within computer networks.

Abraham Boyarsky

Dr. Abraham Boyarsky has been with the Dept. of Mathematics and Statistics in the Faculty of Arts and Science since 1972. He was educated at McGill University. His main area of research is dynamical systems.

Tien Bui

Dr. Tien Bui has been a researcher in the Dept. of Computer Science and Software Engineering in the Faculty of Engineering and Computer Science for 30 years. He was educated in Ottawa at Carleton University and the University of Ottawa and in Toronto at York University. His research interests include scientific computations and applications, mathematical modelling, image and video processing, and wavelet transforms and their applications in pattern recognition.

Yogendra Chaubey

Dr. Yogendra Chaubey has been a researcher in the Dept. of Mathematics and Statistics in the Faculty of Arts and Science since 1979. He was educated at Banaras Hindu University and the Indian Statistical Institute in India and at the University of Rochester in Rochester, New York. His primary research is focused on Statistical Methodology.

NSERC 25 Years

Nabil Esmail

Dr. Nabil Esmail was appointed Dean of the Faculty of Engineering and Computer Science in 1997, simultaneously joining the Dept. of Mechanical and Industrial Engineering as a professor and researcher. Prior to that, Dean Esmail had spent more than two decades with the Dept. of Chemical Engineering at the University of Saskatchewan as a professor and departmental chair. He was educated at Moscow State University in Moscow, Russia. His research expertise covers fluid mechanics, computational fluid dynamics, experimental flow measurement, rheology, and pulp and paper.

Paul Fazio

Dr. Paul Fazio has been with the Dept. of Building, Civil, and Environmental Engineering in the Faculty of Engineering and Computer Science for over 37 years, establishing the Centre for Building Studies in 1977 with an NDG grant from NSERC, followed by the approval of the building engineering program in the late 1970s. He was educated in Windsor, Ontario at the University of Windsor. His research focuses on the performance of the building envelope, industrialized building systems, curtain walls, and failures due to mold.

Kinh H. Ha

Dr. Kinh H. Ha has been a researcher in the Dept. of Building, Civil, and Environmental Engineering in the Faculty of Engineering and Computer Science since 1973. He received his degrees at the University of British Columbia and Sir George Williams University (now part of Concordia). His research is in the areas of structural systems, finite element method, and composite construction.

Richard Hall

Dr. Richard Hall began his academic career with the Dept. of Mathematics and Statistics in 1972. He received his degrees from the University of London in the United Kingdom. His research interests include quantum mechanics, Schrödinger operators, applied analysis, applied probability, spectral geometry, geometric special inversion, and the many-body problem in quantum mechanics.

Jeremiah Hayes

Dr. Jeremiah Hayes retired from the Dept. of Electrical and Computer Engineering in the Faculty of Engineering and Computer Science in 2001 after 40 years of researching and teaching. He received his degrees from Manhattan College and New York University in New York City and at the University of California, Berkeley. His research focused primarily on telecommunications.

Donal Hickey

Dr. Donal Hickey began his research and teaching in 1978 at Brock University, then became a faculty member at the University of Ottawa in 1981 before joining Concordia in the summer of 2004. He earned his degrees at the National University of Ireland and at Harvard University in Massachusetts. As the Canada Research Chair in Genome Evolution, Dr. Hickey is actively researching the patterns of genome evolution using bioinformatics tools, which will be relevant to molecular medicine and environmental protection.

Suong Van Hoa

Dr. Suong Van Hoa started his career in research and teaching in the Dept. of Mechanical and Industrial Engineering in the Faculty of Engineering and Computer Science in 1977. He currently holds the Concordia Research Chair in Materials and Composites. He studied at California State University at San Luis Obispo and the University of Toronto. Working on numerous industrially-related research projects with Canadian and American companies, Dr. Hoa has, through his research, invented composite reinforced plastic rods for concrete reinforcement, an instrument used for the continuous monitoring of shrinkage of thermoset resins, and a self-fire extinguishing resin using nano-particles from clay.

Ragai Ibrahim

Distinguished Professor Emeritus Dr. Ragai Ibrahim joined the Department of Biology, Faculty of Arts and Science in 1966. He was educated at the Universities of Cairo and Alexandria in Egypt and McGill University in Montreal. His research involves the enzymology and cloning of genes encoding flavonol methyltransferases and their characterization and regulation as well as their potential use in metabolic engineering for plant improvement.

Zohel Khalil

Professor Emeritus Dr. Zohel Khalil became a faculty member in the Dept. of Mathematics and Statistics in the Faculty of Arts and Science in 1973. He was educated at Alexandria University, Egypt and at Moscow State University, Russia. His main focus of research has been on Applied Probability Models in System Reliability, Maintainability and Environmental Modelling.

Hershy Kisilevsky

Dr. Hershy Kisilevsky has been a researcher with the Dept. of Mathematics and Statistics in the Faculty of Arts and Science for 27 years. He was educated at McGill University and the Massachusetts Institute of Technology in Boston. His research specialization is number theory.

Jack Kornblatt

Assistant Professor Emeritus Dr. Jack Kornblatt began his research career in the Dept. of Biology in the Faculty of Arts and Science in 1974. He was educated at UCLA in California and Western Reserve University and the University of Cincinnati in Ohio. His research involved studies on the biochemistry of heme containing proteins for about 30 years. More recently, he has worked on the involvement of water in enzyme systems as well as the energetic mechanism by which the clot busting protein, plasmin, gets activated.

M.J. Kornblatt

Dr. M.J. Kornblatt started in the Dept. of Chemistry and Biochemistry in the Faculty of Arts and Science in 1974. She was educated at Earlham College and the University of Cincinnati in Cincinnati, Ohio. Her research is focused on the dimeric, metalloenzyme, enolase, whereby the relationships between quaternary structure, stability, and catalytic activity are examined. She also studies the rate-limiting steps in the mechanism and how they are perturbed by agents such as pH, monovalent cations, osmotic pressure, and hydrostatic pressure.

Stanley Kubina

Professor Emeritus Dr. Stanley Kubina was recruited from industry in 1965 to head the Dept. of Electrical Engineering in the Faculty of Engineering at Loyola College, and became a faculty member in the Dept. of Electrical and Computer Engineering in the Faculty of Engineering and Computer Science with the creation of Concordia. He was educated at McGill University. His research was geared towards avionic systems & systems integration, electromagnetic compatibility (EMC) and the computational modeling of antennas on complex real-world structures such as aircraft and spacecraft.

Clement Lam

Dr. Clement Lam came to the Dept. Computer Science and Software Engineering in the Faculty of Engineering and Computer Science in 1975. He was educated at the California Institute of Technology. His research interest is in combinatorics, especially in the application of computers to solve mathematical problems.

NSERC 25 Years

Sui Lin

Dr. Sui Lin retired from the Dept. of Mechanical and Industrial Engineering in the Faculty of Engineering and Computer Science in 1966 after 26 years as a professor and researcher. He studied at the Ordnance Engineering College in Taiwan and The Technical University of Karlsruhe in West Germany (now Germany). He focused his research on Heat Transfer and Fluid Mechanics.

John McKay

Dr. John McKay, F.R.S.C., is a member of both the Dept. of Mathematics and Statistics in the Faculty of Arts and Science and the Dept. of Computer Science in the Faculty of Engineering and Computer Science, beginning his career at Concordia in 1974. He earned his degrees at the University of Manchester and the University of Edinburgh, both in the United Kingdom. His research areas include Computational Group Theory, sporadic groups, and computing Galois Groups.

Hugh McQueen

Distinguished Professor Emeritus Dr. Hugh McQueen retired from the Dept. of Mechanical and Industrial Engineering in 1998 after 29 years of service as a researcher and professor. He was educated at Loyola College (now part of Concordia) and McGill University in Montreal and the University of Notre Dame in Indiana. His research interests included hot working of metals, the social impact of engineering, and materials for solar thermal collectors.

Sushil Misra

Dr. Sushil Misra has been a member of the Dept. of Physics in the Faculty of Arts and Science for 37 years. He studied Physics at Agra University and Gorakhpur University in India, and St. Louis University in Missouri, and later obtained a degree in French Literature and a Diploma in Translation from Concordia. His research is focused on experimental and theoretical condensed matter physics, with specialization in Electron Paramagnetic Resonance (EPR) and Electron Spin-Resonance Technology, including distance measurements in biological samples using the EPR technique.

Elaine Newman

Killam Research Fellow and Radcliffe College graduate Dr. Elaine Newman has been a member of the Dept. of Biology since 1969. A life-long friend of *E. coli*, she has admired the efficiency of its metabolic regulation and gene expression. She is grateful for continuous support from NSERC and its predecessors since 1970 and to the wonderful group of students and collaborators world-wide who have made it possible for her to devote herself to this field, and extends apologies to her procaryote friends for her continuing effort to design a new antibiotic.

Jaroslav Opatrny

Dr. Jaroslav Opatrny joined the Dept. of Computer Science (now the Dept. of Computer Science and Software Engineering) in the Faculty of Engineering and Computer Science in 1977. He received his education at Charles University in Prague and the University of Waterloo. His present research is primarily on network models, routing and communications in ad-hoc or mobile networks.

Mohamed Osman

Distinguished Professor Emeritus Dr. M.O.M. Osman retired from the Dept. of Mechanical and Industrial Engineering in the Faculty of Engineering and Computer Science in 1996 after 29 years as a professor and researcher. He studied at Cairo University in Egypt and the Swiss Federal Institute of Technology E.T.H. Zurich. His research focused on the area of mechanical systems in automated manufacturing. He is also a Fellow of ASME and CSME and Founder/chairman of the Canadian Council for the Theory of Machines and Mechanisms.

Oscar Pekau

Dr. Oscar Pekau has been a researcher and professor in the Dept. of Building, Civil, and Environmental Engineering in the Faculty of Engineering and Computer Science since 1971. He obtained his degrees at the University of Toronto, Imperial College at the University of London, and the University of Waterloo. He is primarily interested in research that explores the earthquake resistant design of buildings, seismic fracture analysis of concrete dams, the progressive collapse of precast panel structures, controlling seismic damage in asymmetric structures, and computer applications in structural engineering.

Thiruvengadam Radhakrishnan

Dr. Thiruvengadam Radhakrishnan began his career in the Dept. of Computer Science (now the Dept. of Computer Science and Software Engineering) in the Faculty of Engineering and Computer Science in 1974. He received his degrees at Madras University and the Indian Institute of Technology in Guindy and Kanpur, respectively, in India. His current research interests include Multi Agent Systems, Intelligent User Interfaces in Software Engineering and Medical Informatics.

Venkatanarayana Ramachandran

Dr. Venkatanarayana Ramachandran has been with the Dept. of Electrical and Computer Engineering in the Faculty of Engineering and Computer Science for over 35 years. He studied at the Indian Institute of Science in Bangalore, India. His research comprises multidimensional signal processing and two-dimensional analog and digital filters.

Amruthur Ramamurthy

Dr. Amruthur Ramamurthy began his career as a researcher and professor with the Dept. of Building, Civil, and Environmental Engineering in the Faculty of Engineering and Computer Science in 1970. He obtained his degrees at St. Philomena's, the National Institute of Engineering, and the Indian Institute of Science in India and at Purdue University in Indiana. His research focuses on water resources engineering, particularly water quality modeling, ground water contamination, dispersion of contaminants in surface water bodies, flow measurement, fluids engineering (computational fluid dynamics), and hydraulic engineering.

Robert Raphael

Dr. Robert Raphael has been a researcher and professor in the Dept. of Mathematics and Statistics in the Faculty of Arts and Science since 1970. He received his education at the University of Waterloo and McGill University. His research focuses on Ring theory and commutative algebra.

Otto Schwelb

Dr. Otto Schwelb began his research and teaching career with the Dept. of Electrical and Computer Engineering in the Faculty of Engineering and Computer Science in 1967. He studied at the Budapest Technical University in Budapest, Hungary and at McGill University in Montreal. His research mainly consists of studies on electromagnetic wave propagation in optical waveguides and microoptic resonators.

NSERC 25 Years

Nick Serpone

Professor Emeritus Dr. Nick Serpone retired from the Dept. of Chemistry and Biochemistry in the Faculty of Arts and Science in 1998 after 31 years of teaching and researching. His research focused on the photochemistry and photophysics of inorganic materials, on laser spectroscopy, and on the photochemistry of sunscreen active agents currently employed in commercial formulations. Following his retirement, he spent 3 years (1998-2001) at the National Science Foundation in Washington, D.C., as Program Director in the Chemistry Division and since 2001 he spends part of his time at the University of Pavia, Italy, where he is continuing his research on sunscreens.

Peter Shizgal

Dr. Peter Shizgal has been with the Dept. of Psychology in the Faculty of Arts and Science since 1975. He studied at McGill University and the University of Pennsylvania. His research focuses on behavioural neurobiology, particularly the neural basis of motivation and reward in humans and animals. A founder of the Center for Studies in Behavioral Neurobiology, Dr. Shizgal also holds a Concordia Research Chair in Psychology.

Ronald J. Stern

Dr. Ronald J. Stern has been with the Dept. of Mathematics and Statistics in the Faculty of Arts and Science for 28 years. He studied at the Cooper Union for the Advancement of Science and Art in New York City and Northwestern University in Chicago. He focuses his research on nonsmooth analysis and optimization.

Jane Stewart

Dr. Jane Stewart began her career as a professor and researcher in the Dept. of Psychology in the Faculty of Arts and Science in 1963. She received her degrees at Queen's University in Kingston, Ont. and the University of London in the United Kingdom research interests include the neurobiology of motivation, drug relapse in animals, the mechanisms that lead to long-lasting neurochemical changes that underlie sensitization to the behavioral activating effects of drugs of abuse, and the role of steroid hormones and neurotrophic factors in development. She is a founder of the Center for Studies in Behavioural Neurobiology.

Ching Y. Suen

Dr. Ching Y. Suen started his career with the Dept. of Computer Science (now the Dept. of Computer Science and Software Engineering) in the Faculty of Engineering and Computer Science 32 years ago. He was educated at the University of Hong Kong and the University of British Columbia in Vancouver. His research is focused on pattern recognition and machine intelligence, and he is the director and founder of the Centre for Pattern Recognition and Machine Intelligence (CENPARMI). He also holds the Concordia Research Chair in Artificial Intelligence and Pattern Recognition.

Srikanta (M.N.S.) Swamy

Dr. Srinkata (M.N.S.) Swamy has been a member of the Dept. of Electrical and Computer Engineering in the Faculty of Engineering and Computer Science since 1968 and is currently a research professor in the Department. He received his degrees from Mysore University, the Indian Institute of Science, Bangalore, India and from the University of Saskatchewan in Saskatoon. His research interests are in the area of signal processing, including speech, image and video processing. He currently holds the Concordia Research Chair in Signal Processing and Applications.

Oswald Tee

Distinguished Professor Emeritus Dr. Oswald Tee retired from the Dept. of Chemistry and Biochemistry in the Faculty of Arts and Science in 2000 after 30 years of teaching and researching. He studied at the University of Leicester and the University of East Anglia in the United Kingdom and at McMaster University in Hamilton, Ont. and was a post-doctoral fellow at the University of Toronto. His research has focused on physical organic chemistry, most recently on the effects of host-guest binding on organic reactivity, transition state stabilization, and the origins of Supramolecular Catalysis.

Truong Vo-Van

Dr. Truong Vo-Van began his career as a professor and researcher in Physics at l'Université de Moncton in 1976, moving to Concordia in 2003 to assume the newly-created position of Vice-Provost, Research. He studied at École polytechnique de Montréal, Université de Moncton in New Brunswick, and University of Toronto. His research interests include the optical and electrical properties of materials and thin films, smart materials, electro-optic devices, and advanced optical instrumentation.



Concordia

U N I V E R S I T Y